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2. M. **obtusa**, testacea, pallide pubescens, thorace fortiter dense punctato, latitudine duplo breviore, lateribus rotundatis, angulis posticis obtusis, apice summo dentiformi prominulo; disco canaliculato et utrinque late impresso, elytris dense punctatis, punctis antice fortioribus; antennis extrorsum, pectore abdomineque infuscatis. Long. ·20.

One specimen from Andover, Mass., (Mr. Sanborn,) and two from Kansas. Of the same size as the preceding and following, but differs from M. angularis by the angles of the thorax not being prominent; from M. guttulata by the elytra not being impressed at the sides and on the disc; and from both by the elytra being not distinctly dotted with black. The punctuation is stronger than in M. angularis, and about the same as in M. guttulata. The disc of the prothorax is sometimes slightly fuscous.

3. M. guttulata. *Galleruca guttulata* Lec., Rep. Pacific R. R. Expl., 70.

One specimen found by me at San Francisco. Similar in size and shape to M. angularis, but the angles of the thorax are not prominent, and the elytra are compressed at the sides, and obliquely impressed behind the humeral elevations.

4. M. **debilis**, pallide testacea, dense pallide pubescens, thorace latitudine duplo breviore, lateribus rotundatis, angulis posticis minutis prominulis, disco dense punctato late canaliculato utrinque vage impresso, elytris thorace latioribus, profunde punctatis, punctis antice fortioribus, punctis parvis nigris serie 4-plici utrinque ornatis, transversim convexis; antennis extrorsum fuscis. Long. ·15—·18.

New Mexico, Mr. Ulke. The pubescence is dense and somewhat silvery. The black dots of the elytra are minute, and those of the subsutural series usually coalesce, forming a narrow, abbreviated line; the humeri are prominent and marked with a larger black spot.

The fifth ventral segment of the male is deeply and narrowly incised.

This species most closely resembles in appearance M. obtusa, but the claws are distinctly cleft, with the inner portion acute and shorter than the outer one.

I am disposed to think that G. puncticollis *Say*, (Journ. Acad. Nat. Sci., iii. 458; ed. Lec., ii. 222,) is allied to this species, but the elytra are described as having two vittæ on each, which are frequently obsolete, and the tibiæ and tarsi are black. The comparison made by Say with G. baccharidis, to which it has no relation whatever, has rendered the species obscure.

5. M. consputa. *Galleruca consputa* Lec., Rep. Pacific R. R. Expl., 70.

San Jose and San Francisco, Cal., on oak leaves. Smaller and narrower than G. debilis, with the elytra coarsely punctured, the sides compressed and impressed, and the disc obliquely impressed behind the humeri.

6. M. sordida. *Galleruca sordida* Lec., Proc. Ac. Nat. Sc. Phil., 1858, 88.

Colorado Desert, California, two specimens. Very similar in form and color to G. consputa, but the elytra are finely punctured, with the punctures almost concealed by the dense golden pubescence.

The fifth ventral segment of the male in both species is incised at the tip.

Prodromus of a Monograph of the Species of the Tribe ANOBIINI, of the Family PTINIDÆ, inhabiting North America.

BY JOHN L. LE CONTE, M. D.

In the classification of the Coleoptera of North America, published by the Smithsonian Institution, I proposed, in 1862, an arrangement of the insects allied to the old genus Anobium, by which the number of genera was largely increased. My views were not noticed in the excellent work of Duval,* on the genera of the Coleoptera of Europe, in which, with the addition of some genera not represented in our fauna, the classification remains as before. I subsequently learned, by the reception of the very valuable work of C. G. Thomson,† on the Coleoptera of Skandinavia, that several of the genera recognized by me had been previously described by him, and, in fact, so far as his arrangement is applicable to our fauna, I have had occasion to make no changes in the genera as limited by him. Within a few weeks I have received a copy of the admirable work of Mulsant and Rey,‡ on the Terediles of France, which would, indeed, have been exhaustive, if it had not happened unfortunately, that the work of Thomson, above mentioned, remained unknown, to the authors. The result is that all of the genera described by Thomson have received new names in this later memoir.

It has been my endeavor, in the present brief treatise, to harmonise, with the material before me, the views and names contained in the three works quoted, and at the same time to arrange the genera in a more natural manner than has been heretofore proposed.

It has seemed to me that the genera form a nearly regular series, represented by species, more or less numerous, from those in which the members (antennæ and legs) are but slightly contractile, to those in which all are received in appropriate excavations of the trunk; from those in which the head is scarcely deflexed, to those in which the mandibles in repose fit against the mesosternum, shutting in the under surface of the head and prothorax.

Considering the variation in form and structure of the antennæ, in genera which are evidently closely related, I have regarded the manner in which the body is contracted in repose as of fundamental importance in the classification of the genera.

I divide them, therefore, as follows:

A. Head received in repose upon the under surface of the prothorax...................... group Anobia.
  Prothorax not excavate beneath, head free.. subgroup Dryophili.
  Prothorax excavated beneath, for reception of head........................ ... . subgroup Anobia.
B. Mandibles in repose, resting against the mesosternum...................................... group Xyletini.
  Head excavated beneath for reception of antennæ.. subgroup Xyletini.
  Antennæ received between the coxæ........... subgroup Dorcatomata.

In all the subgroups, excepting the first, (in which the contractile power is feebly developed,) there is great difference between the genera in the mechanism adopted for the protection of the antennæ, and a regular gradation in the power of contractility, as will be readily observed by looking at the tables of genera given below.

Anobium pudicum *Boheman*, Eugenie's Resa, 86, is said to have been collected in California, but as the localities of the insects of the expedition seem to have been confused, it may be regarded as a doubtful member of our fauna. (Vide Eupactus.)

I have excluded Ptilinus from this tribe; it seems to me, as stated in the Classification of Coleoptera of North America, to represent a separate tribe, leading to the subfamily *Bostrichidæ.*

Subgroup I. *DRYOPHILI.*

In the species of this group the body is elongate, the head capable of being only moderately deflexed; the prothorax not excavated beneath for its reception, and the legs not received in cavities.

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* Genera des Coléoptères d'Europe, par M. Jacquelin Du Val, (Camille.)

† Scandinaviens Coleoptera synoptiskt bearbetade af C. G. Thomson. Lund, 1859—1863.

‡ Hist. Naturelle des Coléoptères de France, Térédiles par E. Mulsantiet Cl. Rey. Paris, 1864.

The antennæ have the intermediate joints narrow, and the last three dilated and sometimes much elongated; they are not received between the coxæ in repose, but rest loosely upon them, and are 11-jointed in our genera. The anterior aperture of the prothorax is circular. In our genera the thorax is margined, and the elytra are not striate, though European genera exist in which these characters are wanting. The ventral segments are never connate.

Our genera are related as follows:

Anterior coxæ contiguous, prominent, conical...... Ernobius.
Anterior coxæ separated by the prosternum:
  Prosternum moderate, tarsi narrow.................. Ozognathus.
  Prosternum very short, tarsi dilated................. Xestobium.

ERNOBIUS Thoms., Skand. Col. i. 88, (1859;) v. 146, (1863.)

This genus, first recognized by C. G. Thomson, in his excellent work on the Coleoptera of Skandinavia, has been since described by other authors, as follows: Liozoum *Mulsant* & *Rey*, opusc. Ent. xiii. 92, (1863); Coléopt. de France, Terediles, 133, (1864); Dryophilus *Lec.*, Class. Col. 205, (1862); Philoxylon *Lec.*, ibid.; Conophoribium *Chevr.*, Ann. Ent. Tr., 1861, 391.

I divided the species into two genera, on account of the difference in the length of the prosternum in front of the coxæ, but a renewed examination convinces me that this character is of merely specific value.

The genus will be readily recognized by the characters above given. In addition to them, the middle coxæ are nearly contiguous, the tibiæ are slender, the tarsi are narrow, with the first joint elongated, and the fifth joint not dilated, but slender and elongated. The plates of the hind coxæ are very narrow, and not dilated internally. The sixth ventral segment can usually be seen.

The species known thare may be grouped as follows:

Ninth joint of antennæ shorter than the 4th—8th united; (joints 5—8 equal in thickness;) 5th and 7th longer than sixth;
  Thorax not transversely impressed;
    Sides of thorax much rounded............................1. mollis.
    Sides of thorax less rounded.............................2. punctulatus.
  Thorax with a vague transverse impression ....3. alutaceus.
    Joints 6th, 7th and 8th equal in length........ .....4. debilis.
9th joint of antennæ as long as the 4th—8th united:
    Elytra densely finely granulated.........................5. granulatus.
    Elytra finely not densely punctulate....................6. marginicollis.
9th joint of antennæ as long as the 1st—8th united...7. tenuicornis.

1. E. mollis *Thoms.*, Skand. Col. v. 146; *Dermestes mollis* Linn.; *Anobium molle* Fabr., &c.; *Liozoum molle?* Muls. & Rey; *Anobium convexifrons* Mels., Proc. Acad. Nat. Sci., ii. 309.

A common European species, introduced in the Atlantic States. The thorax is twice as wide as its length, and is much rounded on the sides, which are broadly margined; all the angles are rounded; there are two vague rounded basal impressions, and a scarcely perceptible medial elevation.

The fifth joint of the antennæ is longer than the fourth, the fifth to the eighth joints are equal in thickness, oblong, and the sixth is shorter than the adjoining ones; the eighth is a little shorter than the seventh, the ninth, tenth and eleventh are equal in length, and each is a little longer than the seventh and eighth united.

2. E. punctulatus. *Anobium punct.* Lec., Proc. Acad., 1859, 284.

California. Related to the preceding, but the thorax is more transverse, with the sides much less rounded, and the elytra are less densely punctulate; the disc of the thorax is obsoletely channelled behind the middle. The proportion of the joints of the antennæ seems scarcely different from E. mollis.

3. E. alutaceus. *Philoxylon alut.* Lec., Proc. Ac. 1861, 352.

California, one specimen. More elongate than the two preceding species, with the sides of the thorax considerably rounded, but the anterior angles more distinct, and less rounded; the disc is marked with a vague transverse impression in front of the middle; the elytra are scarcely distinctly punctulate. The joints, 5—8 are less unequal in length than in E. mollis and punctulatus; the ninth is equal in length to the three preceding united, and but very little wider.

4. E. debilis, oblongus, testaceus, nitidus, dense pallide pubescens, capite thoraceque granulato-punctatis, hoc latitudine plus duplo breviore, lateribus explanatis late rotundatis, angulis omnibus rotundatis, basi utrinque vage impresso, linea dorsali pone medium lævi, scutello tomentoso, elytris punctulatis, thorace haud latioribus: antennis articulo 5to sequi longiore, 6—8vo æqualibus, 9mo—11mo præcedentibus duobus conjunctis singulo longioribus et latioribus. Long. ·10.

One specimen from Sta. Barbara, and one from Sta. Cruz Island, California, collected by Mr. C. M. Bache. As stout in form as E. punctulatus, but readily distinguished by the smaller size and different proportion of the joints of the antennæ; the third joint is equal to the fifth, the fourth is somewhat shorter and about equal in length to the sixth; the seventh and eighth are each equal to the sixth; the ninth, tenth and eleventh are about equal in size, and broader than the preceding joints, each one is longer than the seventh and eighth united, and the three together are about equal in length to the joints 2—8 united.

5. E. granulatus, rufescente-fuscus, pube brevi sericea vestitus, subopacus, subtiliter dense granulato-punctatus, thorace latitudine plus duplo breviore, lateribus et angulis rotundatis, disco obsolete canaliculato, versus apicem, et ad medium vage transversim impresso, elytris thorace haud latioribus; antennis testaceis articulis 4 et 5 æqualibus, 6, 7, 8 æqualibus minoribus, 9mo præcedentibus 5 haud breviore. Long. ·20.

One specimen, collected in Florida by Dr. J. G. Cooper. Quite distinct from all others known to me, by the upper surface being finely granulated; the antennæ are very nearly as in E. marginicollis, but the third joint is one-half longer than the fourth, the fourth and fifth are equal, and together are as long as the sixth, seventh and eighth; the ninth is fully as long as the five preceding united. The form is less elongated than E. marginicollis, and is even a little stouter than E. mollis.

6. E. marginicollis. *Anobium marg.* Lec., Proc. Acad., 1859, 87.

One specimen, Oregon. Of much more elongate form, and readily distinguished by the joints of the antennæ, 3—5 being equal in length, 6—8 shorter, (the seventh being very slightly longer than the others) scarcely longer than their width, the ninth as long as the five preceding united, and but slightly broader; tenth and eleventh each equal in length to the ninth. The thorax is narrower than the elytra, the sides broadly margined, the angles rounded, the disc vaguely impressed in front, and feebly channelled behind; the elytra are very finely punctulate, the prosternum is less abbreviated than in the preceding species, and the fifth joint of the tarsi somewhat shorter.

7. E. tenuicornis, modice elongatus, fuscus, nitidus, dense pallide pubescens, capite thoraceque fere opacis, confertim granulatis, hoc latitudine duplo breviore, antrorsum angustiore, lateribus valde rotundatis angustius

explanatis, scutello tomentoso, elytris thorace paulo latioribus, dense punctulatis; oculis (♂) maximis, antennis articulis 9—11 linearibus, singulo præcedentibus conjunctis longiore. Long. ·18.

York Co., Pennsylvania; one male, given me by Dr. Melsheimer. Easily recognized by the characters given above. The second and fifth joints of the antennæ are equal, and a little longer than their width, the sixth to the eighth joints are shorter, transverse and closely connected; the ninth is not wider than the others, linear and very elongate, being longer than all the preceding united; the tenth and eleventh are each equal to the ninth. The prosternum in front of the coxæ is less abbreviated than in the species 1—4; the last joint of the tarsi is longer than usual. The form is less elongated than in E. marginicollis.

I have single individuals, indicating two other species, which seem closely allied to what I have considered as E. mollis, but I am unwilling to describe them, until the discovery of other specimens will enable the specific characters to be defined with greater precision.

OZOGNATHUS Lec., Class. Col. N. Am., 205, (1862.)

In this genus the anterior coxæ are narrowly separated by the prosternum, which, in front of the coxæ, is longer than usual; the coxæ themselves are oval, and not very prominent; the middle coxæ are well separated by the mesosternum, which is flat, declivous and obtusely triangular. The metasternum is deeply channelled behind; the hind coxæ are very narrow externally, and moderately dilated internally, with the hind margin obtusely angulated; the sixth ventral segment is visible. The tarsi are narrow, with the last joint elongated.

The antennæ are alike in both sexes, less than half the length of the body, the joints 3—8 nearly equal in size but with the fifth and seventh somewhat stouter, not longer than their width; the ninth is as long as the three preceding united, and double their width; the tenth is about equal in size to the ninth, and the eleventh a little longer; united they are about equal in length to all the preceding joints together. The eyes are small, convex and prominent.

The male differs from the female, by each mandible being armed at its base by a slender cylindrical horn, as long as the head, which rises perpendicularly, and is inflexed and acute at the tip, meeting the horn of the opposite side.

1. O. cornutus *Lec.*, Class. Col. N. Am., 206; *Anobium corn.* Lec., Proc. Acad., 1859, 87.

California. Sent me by Mr. Andrew Murray, as having been hatched from some galls received by him from California.

1. O. misellus, niger, nitidus, tenuiter pubescens, capite thoraceque punctulatis, hoc convexo, latitudine duplo breviore, lateribus late rotundatis, elytris parce punctulatis, antennis basi, tibiis tarsisque piceo-testaceis. Long. 05

One female found by me at San Diego, California. Differs by its very much smaller size, less dense punctures, and by the hind angles of the thorax not being acutely prominent.

XESTOBIUM Motsch.

Bull. Mosc., 1845, i. 35. Muls. and Rey., Col. de France, Terediles, 119.

Synonym. Cnecus *Thoms.*, Skand. Col., i. 88, (1859;) v. 145, (1863.)

As in the preceding genus, the anterior coxæ are oval, not prominent, and separated by the prosternum, which, however, is very short in front of the coxæ. The middle coxæ are well separated by the mesosternum, which is obtusely triangular. The metasternum is somewhat channelled behind; the plates of the hind coxæ are widely separated and suddenly dilated internally, and the posterior margin is obtusely angulated, as in Ozognathus. But five ventral segments are visible. The tarsi are broad, shorter than the tibiæ, the first joint longer, the last joint dilated, furnished with a dense brush beneath; the claws are distant and minute.

The name Anobium *Fabr.*, should be retained for this genus, as it is not only the first species described under the genus, (*vide* Fabr., Ent. Syst. and Syst. El.,) but is the one which Olivier has assumed for the type, and from which his drawings of the trophi were made. Nevertheless, with a view of disturbing the synonymy less, other species have been assumed by European authors as the types of the genus, and I have refrained from restoring the generic name to the imported species, by which alone it is thus far represented on this continent.

1. X. tessellatum *Motsch.*, Bull. Mosc., 1845, i. 35; Muls. and Rey, Col. Fr. Térédiles, 122. *Anobium tessellatum* Fabr., Ent. Syst., i. 236; Syst. El., i. 321; Oliv Ent., ii. 16, tab. 1, fig. 1, &c. *Cnecus tessellatus* Thoms., Skand., Col., v. 145.

Introduced from Europe into the Atlantic States. Our largest species, and varies considerably in size.

Sub-Group II. *ANOBIA.*

The body is usually elongate in form; the head capable of being strongly deflexed, and resting in repose in the excavated under surface of the prothorax; the antennæ are received between the anterior and middle coxæ, in a more or less distinct excavation, which is sometimes prolonged into the metasternum. The mandibles do not reach the metasternum in repose, the head is convex beneath, and not excavated for the reception of the antennæ. The antennæ have the last three joints generally larger, and the stem usually not serrate, though these characters vary much. The anterior opening of the prothorax is circular; the epipleuræ are foveate in Petalium and Theca; and the hind feet received in excavations of the first ventral segment in Theca and Eupactus.

The genera are numerous. Those found in the United States may be grouped as follows:

I. First ventral segment not excavated for reception of hind feet.
  A. Metasternum not excavated in front;
    a. Antennæ not received between the coxæ, but resting upon them;
  Anterior coxæ contiguous; antennæ 9- or 10-jointed Oligomerus.
  Anterior coxæ nearly contiguous; antennæ 11-jointed.. Sitodrepa.
    b. Antennæ received between the coxæ, which are distant;
  Antennæ subpectinated.................................. Ctenobium.
  Antennæ not pectinated;
    Thighs strongly clavate, tarsi dilated .... Ptinodes.
    Thighs not clavate, tarsi dilated;
      Claws armed with a broad tooth .... Trichodesma.
      Claws not toothed .... Nicobium.
    Tarsi slender, thighs not clavate .... Hadrobregmus.
  B. Metasternum deeply excavated in front;
    Antennæ not serrate, last joints elongated......... Anobium.
    Antennæ serrate, last joints scarcely longer....... Trypopitys.
  C. Metasternum produced in front into a large lobe .. Petalium.
II. First ventral segment excavated for reception of hind feet;
  Mesosternum carinate, epipleuræ foveate at middle.. Theca.
  Metasternum emarginate, epipleuræ not foveate...... Eupactus.

OLIGOMERUS Redt., Fauna Austr.

Muls. and Rey., Col. Fr. Térédiles, 198.

The European species, O. brunneus, has 10-jointed antennæ, but I have recently discovered a species which, without showing any other structural difference, has but nine joints in the antennæ.

The species resemble in the form of antennæ certain Hadrobregmi, but may be at once distinguished by the anterior as well as the middle coxæ being contiguous, without any intervening cavity for the reception of the antennæ.

The species before me may be separated as follows :

Sides of thorax feebly serrate, disc scarcely gibbous...... 1. sericans.
Sides of thorax distinctly serrate ;
  Disc slightly gibbous ; antennæ —— .... 2. obtusus.
  Disc strongly gibbous ; antennæ 9-jointed.............. 3. alternans.

1. O. sericans. *Anobium sericans* Mels., Proc. Acad. Nat. Sci., ii. 309. *O. thoracicus* Lec., Class. Col. N. Amer., 205.

Middle States. I received a specimen of this species from Dr. Melsheimer under the name *A. thoracicum*, and in citing it did not refer to his original description, by which it appears that the name is a synonym of his A. sericans. It will be readily distinguished from the other species by the thorax being but feebly serrate on the sides, with the hind angles not obvious, and the disc very feebly elevated behind the middle, being scarcely gibbous. There are five small but distinct joints between the second joint, and the elongate ones ; the antennæ are therefore 10 jointed. The striæ of the elytra are strongly punctured, the outer ones are deep, and those towards the suture shallow ; both punctures and striæ become obsolete at the tip.

2. O. obtusus, elongatus, cylindricus, fusco-ferrugineus, subtillter sericeo-pubescens, thorace lateribus serratis, angulis posticis obtusis, distinctis, disco punctulato, opaco, ante basin modice elevato ; elytris apice subtruncatis, striis punctatis, apice haud obliteratis, externis profundioribus. Long. ·02.

One specimen from Vermont, Prof. C. B. Adams. Larger than the preceding, of a different color, and quite distinct by the form and sculpture of the thorax, which is distinctly and densely punctulate, more convex, with the disc more elevated in front of the base ; the sides are more distinctly serrate, the hind angles are obtuse, and but slightly rounded ; the reflexed side margin is narrow, and the transverse impressions at the anterior angles are deeper. The antennæ are mutilated, but appear to have been 10-jointed.

3. O. alternans, nigro-piceus, opacus, pube brevi fusco-cinerea sericea dense vestitus, thorace latitudine fere duplo breviore, punctulato, lateribus serratis valde rotundatis, angulis posticis haud distinctis, disco valde convexo, leviter canaliculato, postice elevato, gibboso, et utrinque impresso, elytris striis fortiter punctatis externis profundis, interstitiis 1mo, 3io, 5to et 7mo prominulis versus apicem subreticulatim connexis ; antennis 9-articulatis. Long. ·20.

One specimen found by me on a fence near Long Branch, New Jersey, July, 1865. This species is very distinct, not only by the strongly gibbous thorax, but by the peculiar sculpture of the elytra ; the striæ are more impressed than in the other species ; the sutural interval and the alternate ones, as far as the seventh, are more convex than the intervening spaces, and are irregularly connected towards the tip by a few anastomosing elevated lines. The antennæ are fusco-testaceous ; the third joint is nearly as long as the three following, which are short, but quite distinct ; they are followed by the elongated joints, each of which is as long as the joints 1—6 united, and about twice as broad, though the first of them is broader than the other two, and is somewhat triangular in form; the antennæ are but 9-jointed, the seventh joint, which is conspicuous in the other species, being probably the one which becomes obsolete. The eyes are larger and more prominent than in the specimens of the other species before me, which are females; the under surface of the head, as in them, is coarsely punctured at the sides, and finely rugose longitudinally in the gular space.

SITODREPA Thoms. Skand. Col., v. 166, (1863.)

Synonym. Anobium *Lec*, Class. Col., 204. Anobium, subg. Artobium *Muls. and Rey.*, Col. France, Térédiles, 114.

This genus contains but a single species, which has been introduced from Europe in flour, bread, and other articles of commerce, to all parts of the globe. As it is the most common and the best known species of the Fabrician genus Anobium, I preferred, in separating the genera, to retain the original name for this one. It has, however, since been designated by a distinct name in the excellent treatise of Thomson, above cited, and is, moreover, no more entitled to be regarded as the type than any other of the species chosen by Thomson, Duval, or Mulsant; under these circumstances, I think it proper to adopt the generic name proposed by Thomson.

The genus will be readily recognized by the moderately stout form, and the nearly contiguous anterior coxæ, which are conical and prominent; the middle coxæ are but slightly separated by the obtusely triangular mesosternum; the metasternum is finely channelled; the segments of the abdomen are free, and the plates of the hind coxæ moderately dilated inwards. The elytra are finely striate, and the striæ are punctured; the outer striæ are deeper, and the margin near the base is somewhat prominent. The antennæ are 11-jointed, rather short, with the last three joints together about equal in length to the others in the female, but longer in the male. The tarsi are narrow, with the joints gradually decreasing in length, the fifth is not slender.

1. S. panicea *Thoms.*, Skand. Col, v. 166; *Dermestes pan.* Linn.; *Anobium pan.* Fabr., &c.; *Anobium* (*Artobium*) *panum* Muls. and Rey., Col. France, Térédiles, 114.

An. tenuistriatum Say, Journ. Acad. Nat. Sci., v. 173; Ent., (ed. Le Conte,) ii. 288. *An. obesum* Mels., Proc. Acad. Nat. Sci., 309.

Common throughout the United States and Canada; found also in Lower California, at Cape San Lucas, by Mr. Xântus. The sides of the thorax are distinctly serrate.

CTENOBIUM, n. gen.

Body slender, cylindrical; prothorax deeply excavated beneath for reception of head, which is received in repose upon the anterior coxæ. Antennæ 11-jointed; first joint thicker, nearly cylindrical; second smaller and shorter; third equal in length to the second, triangular, about as broad as its length in the female; fourth to eighth transverse, with the outer angle acutely prolonged in the female, with the fifth and seventh more prolonged than the others; in the male the third to eighth joints are prolonged externally into a cylindrical branch, twice as long as the joint itself; the ninth and tenth joints are compressed, elongate triangular, and as broad as the prolongations of the preceding joints; the eleventh joint is long, oval, and compressed; the three last joints together are equal in length to all the preceding united, in both sexes, and are much longer in the male than the female. Prosternum narrowly separating the anterior coxæ, which are conical and prominent; middle coxæ narrowly separated by the mesosternum, which is obtusely rounded behind; metasternum deeply channelled behind; hind coxæ with the plates narrow, nearly parallel, not dilated inwards; tibiæ slender, not compressed; tarsi longer than the tibiæ, narrow, first joint elongated, last joint short, somewhat dilated, claws slender. Abdomen with the ventral segments not connate, equal in length, tip of fifth segment conical, and prominent in both sexes.

The last joint of the maxillary palpi is elongated, and obtusely subtruncate at tip.

This genus seems closely allied to Oligomerus, but the anterior coxæ are somewhat separated, and the antennæ are very different. The elytra are striate, and the punctures of the inner striæ are confused, as in Oligomerus sericans.

1. Ct. antennatum. Elongatum, cylindricum piceum opacum, pube subtili sericea vestitum, thorace latitudine sesqui breviore, dense subtiliter scabro, lateribus cum basi late rotundatis, disco fere ad basin canaliculato, dein acute elevato, basi vage 4-impresso, elytris thorace 4-plo longioribus, striis punctatis, externis profundis, internis subconfusis; antennis pedibusque ferrugineis. Long. ·20—·25.

Mas antennis corporis dimidio longioribus, articulis intermediis longius pectinatis.

Femina antennis corporis dimidio fere brevioribus, articulis intermediis breviter pectinatis.

Virginia: four specimens kindly given me by Dr. S. Lewis. The sides of the thorax are not serrate, the reflexed margin is very narrow, and extends around the anterior angles upon the apex. The disc is convex, gibbous, strongly channelled until within a short distance of the base, where it is interrupted by the gibbosity; the latter is bounded behind by two converging impressions, outside of which on each side is a feeble elevation, and then a transverse impression, extending to the sides. The hind angles are not obvious. The internal striæ of elytra are not impressed, and their punctures are confused; the striæ near the margin are impressed and regular punctured.

PTINODES Lec., Class. Col., 204.

Body elongate, convex, pubescent, and clothed with long, erect hairs. Prothorax excavated beneath for the reception of the head, disc gibbous, not channelled. Eyes convex, moderate in size, prominent. Antennæ rather stout, joints 3—8 nearly equal, the outer ones slightly transverse; ninth and tenth each longer than the three preceding, and somewhat wider, oblong; eleventh a little longer, oval. The ninth to tenth somewhat longer than all the preceding united. Prothorax narrowed behind, not contiguous to the trunk; prosternum obtusely truncate behind, separating widely the anterior coxæ, which are conical and prominent; middle coxæ prominent, well separated by the mesosternum, which is truncate (?) behind; metasternum not sulcate; hind coxæ with the plate very narrow, scarcely visible. Abdomen with the ventral segments smooth, sparsely hairy, not connate, the fourth shorter than the others, which are equal. Thighs strongly clavate, tibiæ not compressed, with external rows of long hairs; tarsi shorter than the tibiæ, stout, first joint very slightly elongated, fifth joint dilated, claws broadly dilated at base.

The separation between the prothorax and trunk, as well as the clavate femora, easily distinguish this genus, and cause the resemblance to Ptinus, which has suggested the name.

1. Pt. setifer *Lec.*, Class. Col., 205; *Anobium setiferum* Lec., Proc. Acad. Nat. Sci., 1858, 73.

One specimen was collected by me at San Diego, California.

TRICHODESMA Lec.

Body oblong, rather stout, pubescent, and clothed with erect setæ and tufts of fine dense hair; prothorax gibbous above and marked with small rounded tubercles, excavated beneath for the reception of the head. Elytra granulate, and with indistinct rows of large punctures. Eyes small, convex; antennæ 11-jointed, last three joints elongated, not longer together than all the preceding united in the female, but longer in the male; first moderately dilated, second not so stout, and shorter than the first, third as long as the second, but more slender, fourth to eighth nearly equal, oblong, a little longer than their width. Prosternum widely truncate behind, anterior coxæ distant, small, rounded, prominent; mesosternum broadly concave, with a slightly elevated ridge each side beyond the middle coxæ, which are widely separated; tip broadly truncate, closely joined with the metasternum; the latter is marked with a very short furrow behind; the hind coxæ are distant, and their plates are moderately and somewhat suddenly dilated inwards. The ventral segments are not connate, though they appear more closely united than usual; the second and third segments are a little longer than the others. Legs rather short, thighs feebly clavate, tibiæ slender, pubescent, and with fringes of long hairs; tarsi short, broadly dilated, joints about equal in length, fifth broad, triangular, hairy beneath like the others, claws distant, dilated at base into a broad semi-transparent tooth. The last joint of the palpi is broadly truncate at tip.

1. T. gibbosum *Lec.*, Class. Col., 205. *Anobium gibbosum* Say, Journ. Acad. Nat. Sci., v. 171, (ed. Le Conte, ii. 280.)
Middle States. Our most conspicuous species.

NICOBIUM Lec., Class. Coll., 204, (1862.)

Synonym. Anobium, subgenus Neobium, *Muls. and Rey.*, Col. France, Térédiles, 106, (1864.)

This genus, represented only by the introduced European *Anobium* hirtum, differs from the preceding by the less gibbous thorax, the claws not toothed, but slightly broader at the base, and by the regularly striate elytra. The form of body is rather stout and convex, with the thorax separated from the elytra and a little narrower than them. The sterna, coxæ, and tarsi are as in Trichodesma, but the thighs are not at all clavate, and the claws are not appendiculate.

1. N. hirtum. *Anobium hirtum* Illiger, Mag. vi. 19, &c. *An.* (*Neobium*) *hirtum* Muls. and Rey., Térédiles, 106.

I have one specimen in my collection, marked as found in the Southern States, probably in Georgia; it is incorrectly referred to in the Class. Col. N. America, p. 205, as *Anobium sericeum* Muls.

The species will readily be recognized by the striæ composed of large quadrate punctures, and the interstices furnished with single rows of suberect hairs, longer than the pubescence.

HADROBREGMUS Thomson, Skand. Col., i. 89, (1859.)

Synonyms. Hemicœlus, p. *Lec.*, Class. Coll. N. Am., 204, (1862.) Cacotemnus *Lec.*, ibid. Anobium, p. *Muls. and Rey.*, Col. Fr. Térédiles, 62.

The body is long and subcylindrical; the thorax gibbous or tuberculate, excavated beneath for the reception of the head, hind angles not obvious, except in H. foveatus. Elytra with regular punctured striæ. Antennæ varying according to the division; in the second, 11-jointed, with the intermediate joints well defined, and the last three not very much longer than the preceding united; in the first division (Cacotemnus) 10-jointed, the last three joints much longer than the joints 1—7 united.

Prosternum subtruncate behind, separating the anterior coxæ, which are prominent and flattened in front; mesosternum concave, truncate behind, separating the middle coxæ, and leaving a cavity for the reception of the last joints of the antennæ. Metasternum channelled behind; hind coxæ separated, plates very slightly dilated behind, first equal to the second, except in H. foveatus. Ventral segments not connate. Legs moderate, thighs not at all clavate, tibiæ slender, tarsi not shorter than the tibiæ, narrow, first and second joints elongated, fifth rather broad, claws small, not toothed.

Our species may be grouped as follows:

A. Antennæ 10-jointed; hind angles of thorax rounded;
  Disc of thorax slightly gibbous and compressed behind;
    Sides sinuous near the front angles.................... 1. errans.
    Sides regularly rounded in front........................ 2. carinatus.
  Disc of thorax strongly gibbous;
    Sides of thorax subparallel .... 3. linearis.
B. Antennæ 11-jointed; hind angles of thorax rounded;
    (thorax strongly gibbous;)
  Sides of thorax nearly straight................................ 4. pumilus.
  Sides of thorax constricted in front.......................... 5. gibicollis.
C. Antennæ 11-jointed; hind angles of thorax distinct..... 6. foveatus.

A. *Antennæ* 10-*jointed;* (CACOTEMNUS Lec.)

1. H. errans. *Anobium errans* Mels., Proc. Acad. Nat. Sci., ii. 309.

Middle States and Lake Superior. The disc of the thorax is but slightly gibbous behind; the base and sides are rounded, so that the hind angles are not apparent: the sides converge in front, and are impressed so as to become sinuous near the anterior angles, which are distinct.

2. H. carinatus. *Anobium car.* Say, Journ. Acad. Nat. Sci. Phila., ii. 187; ed. Lec, ii. 120.

A very large specimen from Pennsylvania (·26 unc.) has the thorax rather broader, with the sides more rounded and less impressed at the anterior angles than in H. errans.

3. H. linearis, valde elongatus, fuscus, sericeo-pubescens, thorace latitudine haud breviore, lateribus antice fere parallelis, angulis posticis haud conspicuis, anticis subrectis, disco scabro, postice alte elevato, antice obsolete canaliculato, elytris striis profunde punctatis, antennis 10-articulatis. Long. ·20.

One male specimen from Hudson Bay Territory, about the Saskatchewan region. The sides of the thorax are very broadly impressed near the anterior angles, and are nearly parallel for more than two-thirds the length, and are serrate as in H. errans. The disc is considerably elevated in front of the base, the elevation becoming gradually broader and indistinct in front, a feeble dorsal impressed line can be observed, which is more obvious upon the elevated portion; there is also a very feeble lateral accessory tubercle. The elytra are parallel, and the tip is obtusely rounded. The joints four to seven of the antennæ are equal and about as long as their width; the eighth is as long as the five preceding united, and about twice as long as its width; the ninth and tenth are each a little longer than the eighth joint.

B. *Antennæ* 11-*jointed;* (HEMICŒLUS Lec.)

4. H. pumilus, valde elongatus, castaneo-rufus, sericeo-pubescens, thorace subtiliter punctato latitudine haud breviore, antrorsum paulo angustato, lateribus fere rectis angulis posticis rotundatis, anticis subrectis, dorso postice alte elevato, et gibboso, medio breviter canaliculato, dein carinato, ad basin et versus latera late impresso, elytris punctis quadratis striatim positis, interstitiis planis; antennis 11-articulatis. Long. ·11—·14.

Two specimens, Monmouth Co., New Jersey; collected in the sweeping net. Easily distinguished by the small size and 11-jointed antennæ.

The sides of the thorax converge in front and are nearly straight, and strongly margined; the anterior angles are subacute, and the hind ones are rounded; the disc is very acutely elevated in front of the base, and compressed from the top of the elevation to the base; the front declivity of the elevation is channelled; a distinct impression runs obliquely from the base of the elevation to the anterior angles, and the base each side is transversely impressed; the accessory tubercles are thus rendered more obvious than in the preceding species.

The striæ of the elytra are scarcely impressed, the punctures are large and quadrate, and the intervals flat; the tip is obtusely rounded. The joints of the antennæ, fourth to eighth, are small, and nearly equal; the ninth is as long as the six preceding united; the tenth is as long as the ninth, and the eleventh, as usual, a little longer.

5. H. gibbicollis. *Anobium gibbicolle* Lec., Proc. Acad. Nat. Sci., 1859, 284.

One specimen from California. The disc of the thorax is still more elevated than in H. pumilus, the impressions still deeper; the sides do not converge in front, and are deeply bisinuate; the anterior angles are prominent, but not acute at tip.

C. *Antennæ* 11-*jointed; hind angles of thorax distinct.*

6. H. foveatus. *Anobium foveatum* Kirby, Fauna Bor. Am , iv. 190.

Northern portion of the United States and in Canada. This species differs in several important respects from the others and should very likely be separated as a distinct genus. The hind angles of the thorax are quite distinct, the base, instead of being rounded, is sinuous each side and prolonged at the middle; the sides are straight and parallel; the disc is tuberculate each side, broadly excavated in the middle, and but feebly carinate at base. The first ventral segment is obviously shorter than the second; the tarsi are less slender, more distinctly dilated, and the second joint is scarcely longer than the third.

ANOBIUM Fabr. (emend. Thoms., loc. cit., 1859)

Synonym.. Cœlostethus *Lec.*, Class. Col. N. America, 204.

The name Anobium has been restricted by Thomson to those species in which the thorax is excavated beneath for the reception of the head, and the pectoral excavation for the reception of the antennæ prolonged into the metasternum. As he was the first author who has divided the species composing the old genus upon structural characters, it is proper that his right to select that genus for which the name is to be retained should be recognized. The modern idea of types for genera cannot be rigorously applied to those founded by the older authors, and the attempt to do so has been productive of much confusion. The author who first distinguishes the composite elements of a genus to which no type is definitely assigned by the founder may certainly use his judgement in applying the original name to any one of the new genera which contains species of the original author. This judgment once exercised constitutes a kind of priority, which must be respected, in order to prevent the inconvenience of applying the old name to several different genera, according to the ideas of subsequent commentators. Our species are but two in number.

1. A. quadrulum *Lec.*, Proc. Acad. Nat. Sci., 1859, 87.

Puget Sound.

2. A. notatum *Say*, Journ. Acad. Nat. Sci., v. 172; (ed. Le Conte, ii. 281.)

Middle and Northern States.

TRYPOPITYS Redt.

In this genus the thorax is deeply excavated beneath for the reception of the head, and the pectoral excavation is prolonged into the metasternum, as in Anobium, but the antennæ are serrate, with the second joint shorter than the third; the third to the seventh are triangular, and gradually a little longer; the eighth to the tenth become gradually less triangular, they are nearly equal in length, and each is a little longer than the seventh; the eleventh is still longer, and somewhat pointed. The first ventral segment is bounded behind by a distinct suture, but the other sutures are obliterated.

The last joint of the labial palpi is triangular, and broadly truncate.

Our two species may be distinguished thus:

Punctures of elytral striæ large, quadrate............ .... sericeus.
Punctures of elytral striæ smaller, oblong................... punctatus.

1. T. sericeus *Lec.*, Say's Ent. Writings, ii. 280. *Xyletinus sericeus* Say, Journ. Acad. Nat. Sci., v. 172, (ed. Lec., l. c , sup.)

Atlantic States; generally diffused.

2. T. punctatus *Lec.*, Col. Kansas, (Smithsonian Contr.,) p. 13.

New Mexico, near Santa Fe.

PETALIUM Lec., Class. Col. N. Am., 204, (1862.)

Body elongate, prothorax closely united with the trunk, excavated beneath for the reception of the head, which is small and convex, both above and beneath. The eyes are large and not very convex; the antennæ are half as long as the body; the first joint is long and moderately thick, the second joint is nearly as wide as the first, and about as long as its width; the third and fifth are transverse and triangular; the fourth, sixth and seventh are narrowed and smaller, the eighth is still smaller, and only visible with a very high power; the ninth is triangular, and as long as the third and eighth inclusive; the tenth is similar, and equal to the ninth; the eleventh is a little longer, oval and somewhat pointed. The last joint of the palpi is fusiform and acute.

The prosternum is extremely short, the anterior coxæ are conical, and rise perpendicularly, leaving a wide intervening cavity. The mesosternum is deeply excavated longitudinally, and is overshadowed by the metasternum so as to be visible only on dissection. The metasternum is long, deeply sulcate at posterior half, prolonged in front into a very large, slightly convex lobe, which extends over the mouth in repose; towards the sides the anterior portion of the sternum is declivous, and hollowed transversely for the reception of the middle feet; there is a deep transverse excavation for the reception of the middle tarsi each side of the metasternal lobe. The first ventral segment is short, not excavated for the reception of the hind feet; the second segment is as long as the three following united. The feet are moderate, thighs rather long, tibiæ slender, tarsi short, stout, moderately dilated. The epipleuræ are hollowed out below the humeri for the reception of the middle knees, and foveate about the middle for the hind knees.

I have been thus particular in the description of this singular genus, on account of the difficulty of placing it properly in the system. By the approximation of the metasternum to the head, and the reception of the middle feet in excavations, it is related to Dorcatoma, but the form of the body, the structure of the antennæ and head are those of Anobium. The head, although protected in part by the prolonged metasternum, does not touch it in any position.

By the epipleuræ foveate for the reception of the mind knees, this genus resembles Theca.

But one species is known to me.

1. P. bistriatum *Lec.*, Class. Col. 205. *Anobium bistr.* Say, Journ. Acad. Nat. Sc., v. 172; (ed. Leconte, ii. 281.)

Not uncommon throughout the Middle, Southern and Western States. Easily recognized by its very small size, elongate form, by the two striæ of the elytra next the margin being deep, while the others are merely rows of punctures, becoming obsolete behind. The color is usually nearly black, with the feet yellow.

THECA Muls. & Rey.

Body oval, moderately elongated, narrowed in front, convex; head convex beneath, *not at all* excavated for reception of the antennæ; when deflexed, received in a very deep excavation of the under surface of the prothorax, which is nearly closed behind; antennæ 11-jointed, rather short, received under the head, in the prothoracic excavation. First joint large auriculate, second slender, oblong, 3—6 small, seventh acutely prolonged inwards, eighth also prolonged inwards, short, but nearly as wide as the ninth, the 9—10 large, dilated, triangular, eleventh somewhat longer, oval; the last three united, longer than the preceding joints; palpi with the last joint securiform. Prosternum not visible, except on dissection, short, declivous; front coxæ nearly contiguous, horizontal; mesosternum compressed and elevated in the form of a spear head, between and in front of the middle and anterior coxæ, extending to the prothoracic cavity; middle coxæ not widely separated, legs received in deep excavations of the meso- and metathorax. Metasternum rather short, deeply channelled, declivous in front and excavated for reception of middle legs, narrowly truncate at the middle. First ventral segment excavated for reception of hind legs. Legs rather feeble, tibiæ slightly compressed, tarsi short, the first joint somewhat elongated. Elytra with all the striæ deeply impressed, epipleuræ foveate at the middle for reception of hind knees.

The position of this genus is somewhat doubtful. The antennæ do not lie in repose between the coxæ, that space being occupied by the elevated mesosternum. The head, however, is not excavated beneath for the reception of the antennæ, and the head is also prevented from reaching the metasternum by the interposition of this piece. The form of the body suggests rather an affinity with Anobium than with Dorcatoma, or Xyletinus, and I, therefore, regard it as an aberrant member of the present group, in which we have had already (Petalium) an instance of anomalous and excessive development of the metasternum, simulating the form observed in the genera allied to Dorcatoma.

1. Th. profunda, elongato-ovalis, convexa, antice attenuata, nigro picea, griseo-pubescens, capite punctulato, thorace lateribus obliquis rectis, rude haud dense punctato, elytris striis æqualiter profundis, in fundo punctatis, interstitiis planis vix punctulatis; abdomine punctulato, metasterno rude punctato. Long. ·085—·10.

One specimen from Pennsylvania, and another from Lake Superior.

EUPACTUS Lec.

Body elongate, oval, very convex, smooth, shining, glabrous, head with two deep frontal lines before the eyes, and a deep transverse suture separating a small flat clypeus. Eyes large, moderately convex, entire, tolerably finely granulated. Antennæ 11-jointed; first joint large, curved; second joint as wide as, but much shorter, than the first, and suddenly curved inwards; third joint much narrower, triangular, 4—8 as wide as the third, short, transverse; ninth large, compressed, triangular, but not prolonged inwards, about twice as long as its width, an equal in length to the joints 2—8 united; tenth triangular, as wide as the ninth, truncate at tip, closely applied to the eleventh, which is obtusely rounded at the extremity; the tenth and eleventh together form a mass a little longer than the ninth joint. Palpi with the last joint oval, truncate (?). Head convex beneath, with a deep, nearly semicircular excavation behind the mentum; the bottom of this excavation is smooth, but opake; mentum large, trapezoidal. Mandibles strongly dilated at the base. Prothorax narrowed in front, and rounded at the apex, deeply excavated beneath for reception of head. Prosternum short, concave, declivous, widely separating the anterior coxæ, which rise to the level of the metasternum, and are dilated into a transverse, horizontal plate. Mesosternum invisible, (probably concave, and nearly perpendicular.) Metasternum tolerably large, not channelled; produced in front between the middle coxæ into a short and deeply emarginated lobe, which receives the end of the antennæ; declivous each side at the anterior part, and deeply excavated for the reception of the middle feet, excavation distinctly limited by an elevated line; side pieces very narrow, nearly concealed by the elytra. Plates of hind coxæ gradually widened externally. First ventral segment deeply excavated for reception of hind feet; segments 2—4 gradually diminishing in length, the third and fourth sutures double, (that is, composed of two approximate lines.) Legs slender, tibiæ not dilated, tarsi robust, first joint scarcely longer. Elytra uniformly sparsely punctured, entirely destitute of striæ or rows of punctures.

This singular genus is remarkable for the form of the antennæ. The dilatation of the anterior coxæ shows a relation to Theca, while the manner in which the antennæ are folded between the coxæ, in a sternal excavation recalls the more typical Anobia. In the arrangement of the sternal pieces, and close contractility of the feet some resemblance to Chelonarium can also be observed. It resembles very much the figure of Mesocœlopus niger, *Duval*, but in that genus the antennæ are serrate.

1. Eu. nitidus, elongato-ovalis, convexus, niger nitidus, glaber, supra parce subtiliter punctatus, abdomine punctato, metasterno parce fortius punctato, antennis piceis, tibiis tarsisque dilutioribus. Long. ·09—·12.

Western States, Kentucky, (Mr. Wild,) Illinois, (Mr. Walsh.) I have also a specimen marked as collected by Mr. Xantus, at Cape San Lucas, but I regard the locality as doubtful. The surface above is sparsely and finely punctured, the punctures at the middle of the thorax and hinder part of the elytra being less distinct; the thorax is a little wider than its length, narrowed in front, rounded at the apex, feebly bisinuate at base, transversely very convex, sides not margined, the true margin being very much inflexed. Elytra destitute of striæ, suture feebly elevated. Beneath the abdomen is tolerably densely punctured, the third and fourth ventral sutures composed of two approximate lines; the metasternum sparsely but strongly punctured, middle and front feet densely punctulate; inflexed sides prothorax densely punctured.

2. Eu. puuctulatus, ovalis valde convexus, niger nitidus, glaber subtiliter parce puuctulatus, elytris prope basin intra humeros oblique impressis. Long. ·12.

One specimen from Louisiana, in Mr. Ulke's collection. Differs from Eu. nitidus by the broader form, and much more finely punctured elytra: the basal impression is quite distinct, and is just inside of the humeral elevation. No trace of a similar impression is visible in the five specimens of the preceding species now before me.

3. Eu. pudicus, subcylindricus, piceus opacus, alutaceus, dense subtiliter sericeo-pubescens, obsolete haud dense punctulatus, antennis rufo-piceis, articulis duobus ultimis arcte applicatis, præcedente conjunctis longiore. Long. ·19.

? Anobium pudicum Boheman, Eugen. Resa, 86.

One specimen from Lower California, given me by Mr. Ulke. Very different in form and appearance from Eu. nitidus, but without any marked generic distinction. The form is a little more robust than Ernobius mol-